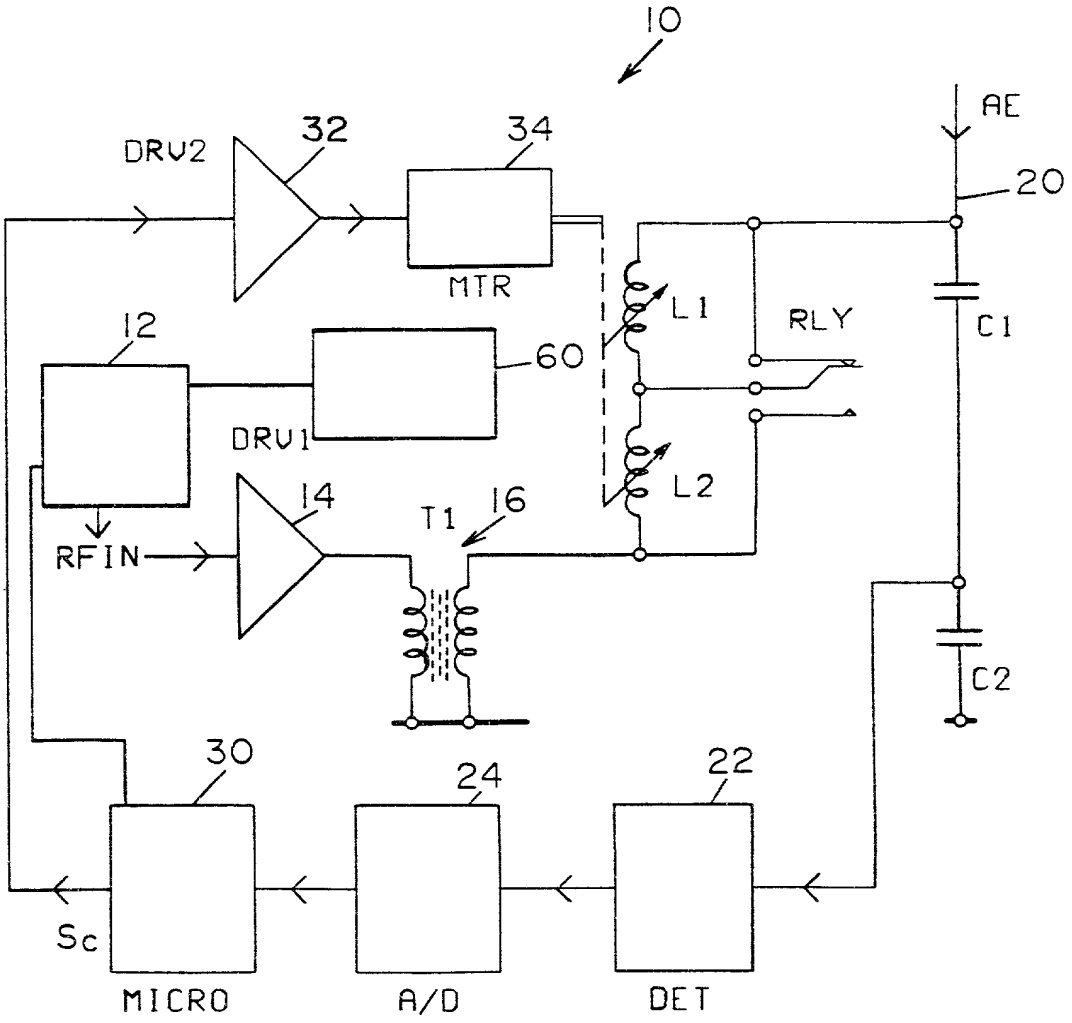
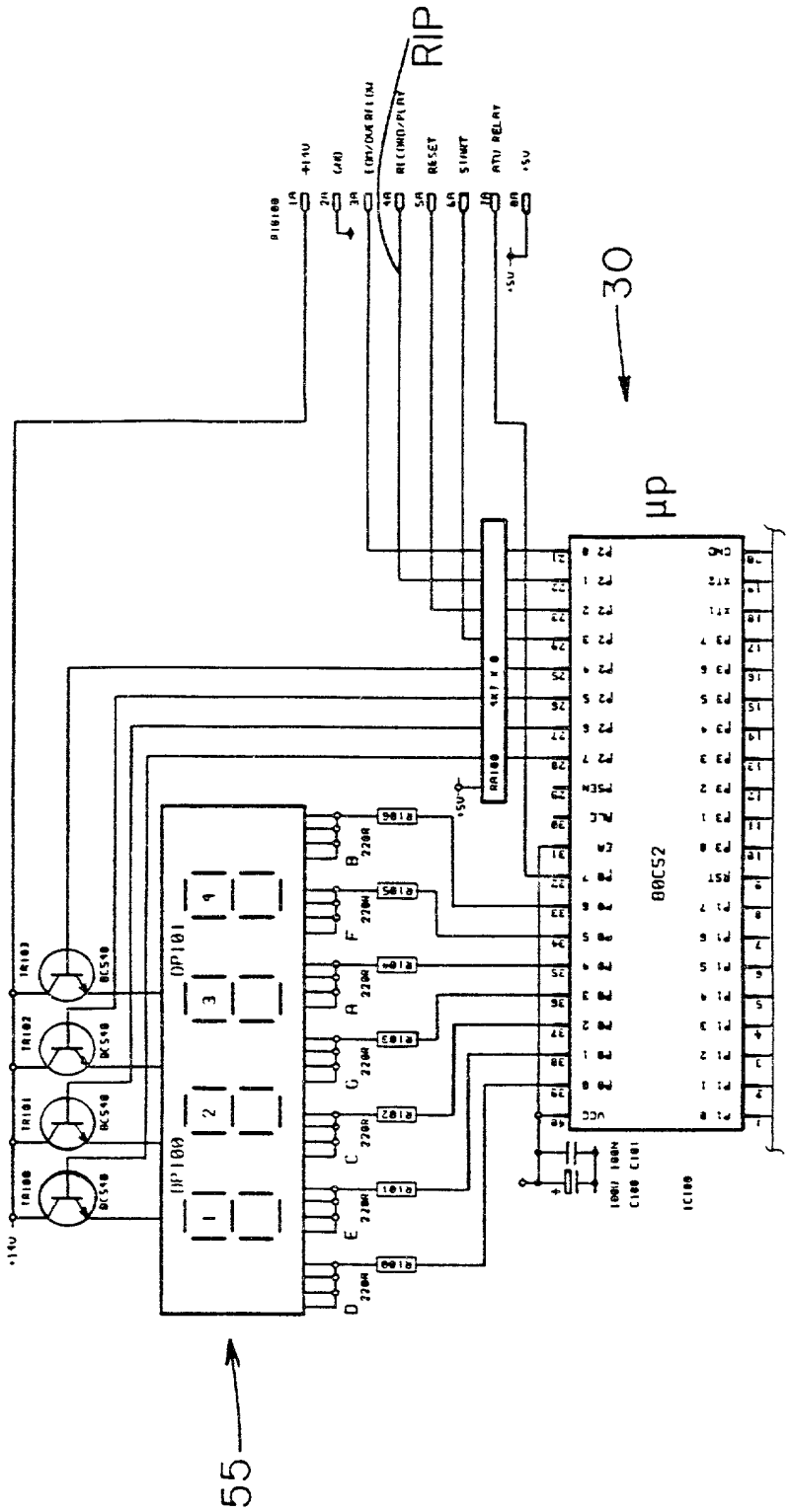

10
AE
20
DRV2
32
34
MTR
L1
RLY
C1
12
60
DRV1
L2
14
T1
16
RFIN
C2
30
24
22
Sc
MICRO
A/D
DET

FIG. 1

FIG. 2



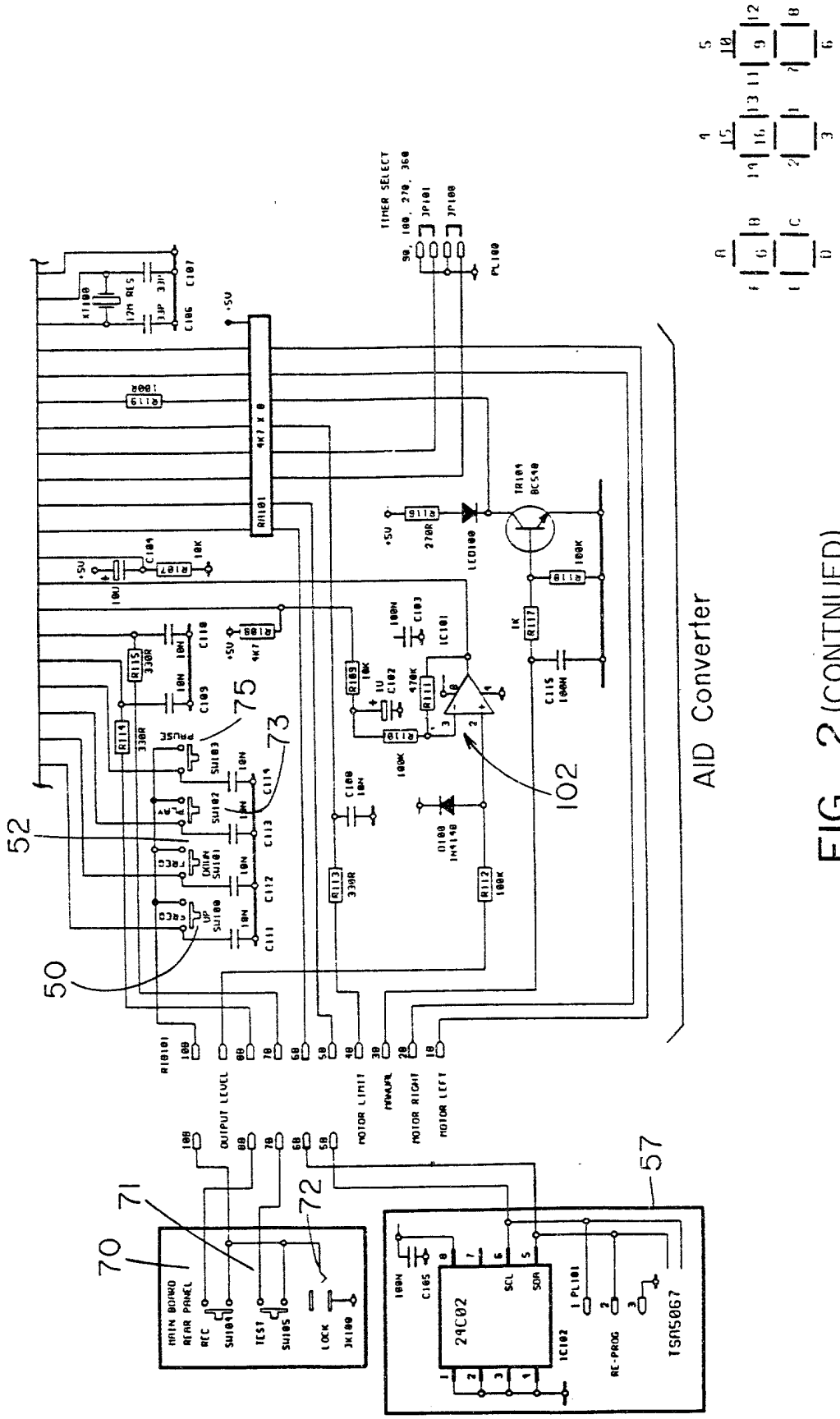


FIG. 2 (CONTNUED)

New Application, Matthew, et al.
"Automatic Tuning AM Transmitter"
Atty Docket No: 29717/37694
Sheet 4 of 11, Fig. 3

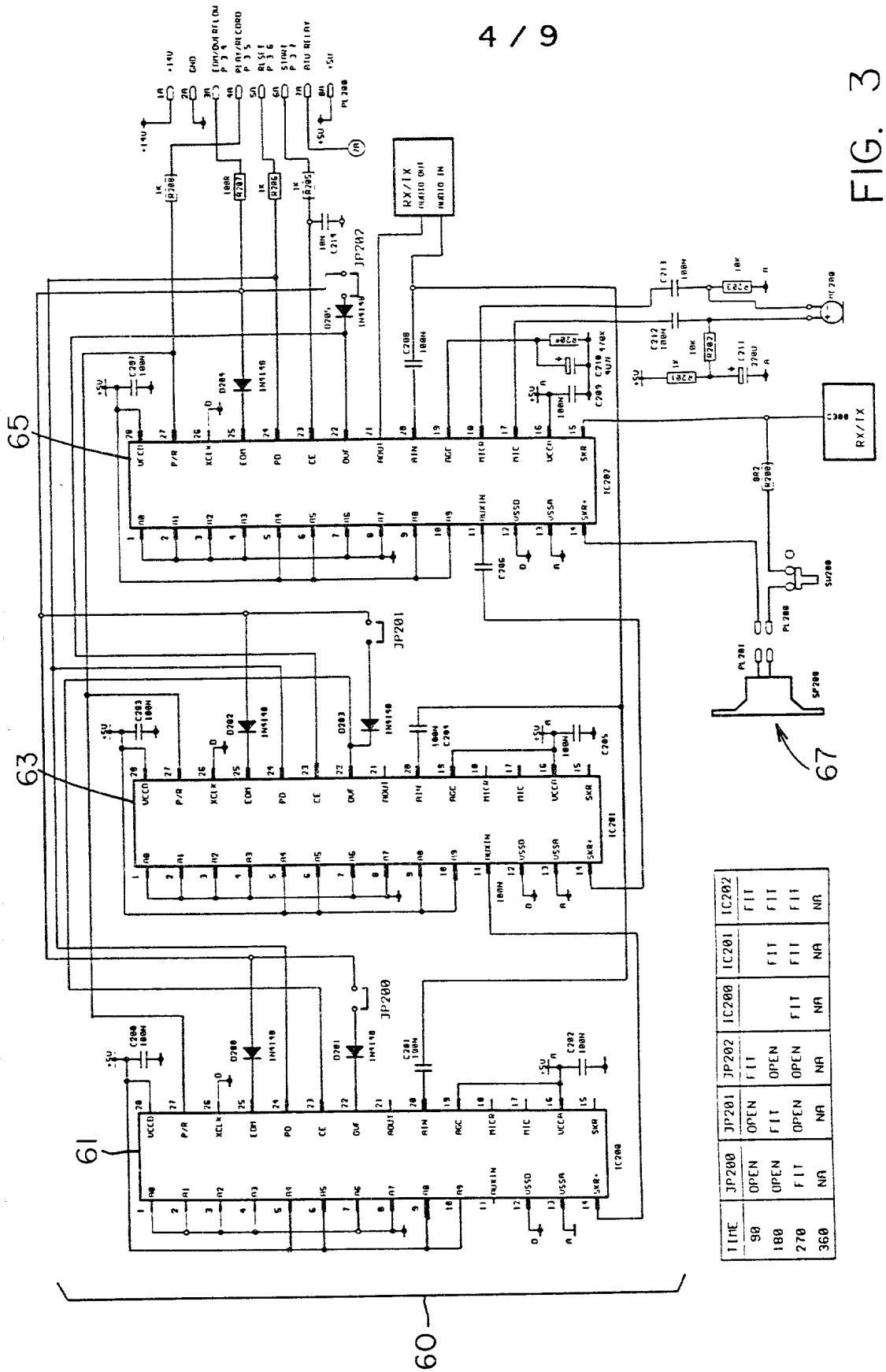


FIG. 3

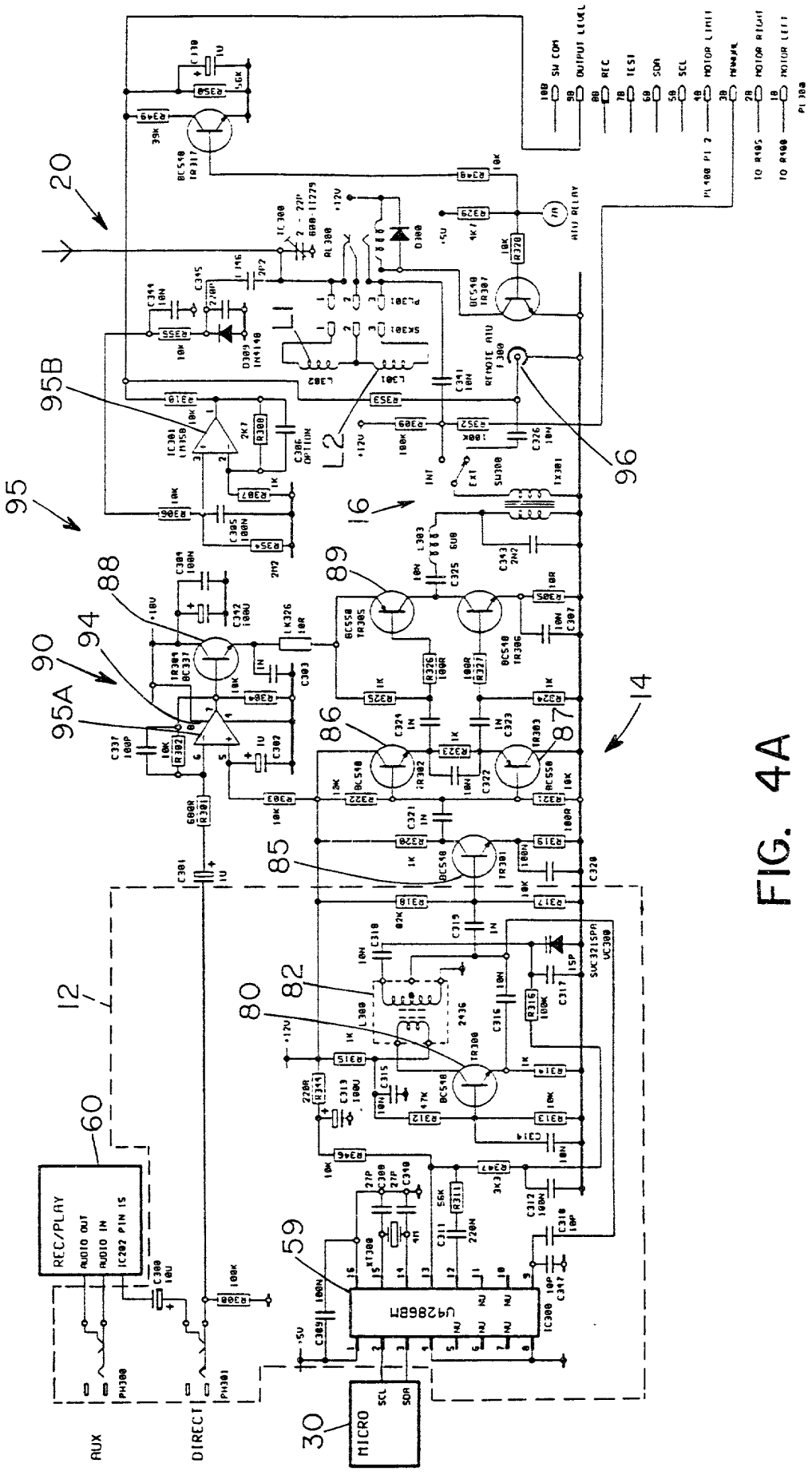

20
95B
95
95A
90
94
88
89
86
87
85
16
14
12
80
82
60
59
30
L1
L2
96
REC/PLAY
AUDIO OUT
AUDIO IN
IC202 PIN 15
AUX
DIRECT
MICRO
SCL
SDA
SW COM
OUTPUT LEVEL
REC
TEST
SDA
SCL
MOTOR LIMIT
MANUAL
MOTOR RIGHT
MOTOR LEFT
AIU RELAY
REMOTE AIU
BC548
BC558
BC550
U4286M
SUC3215PA

FIG. 4A

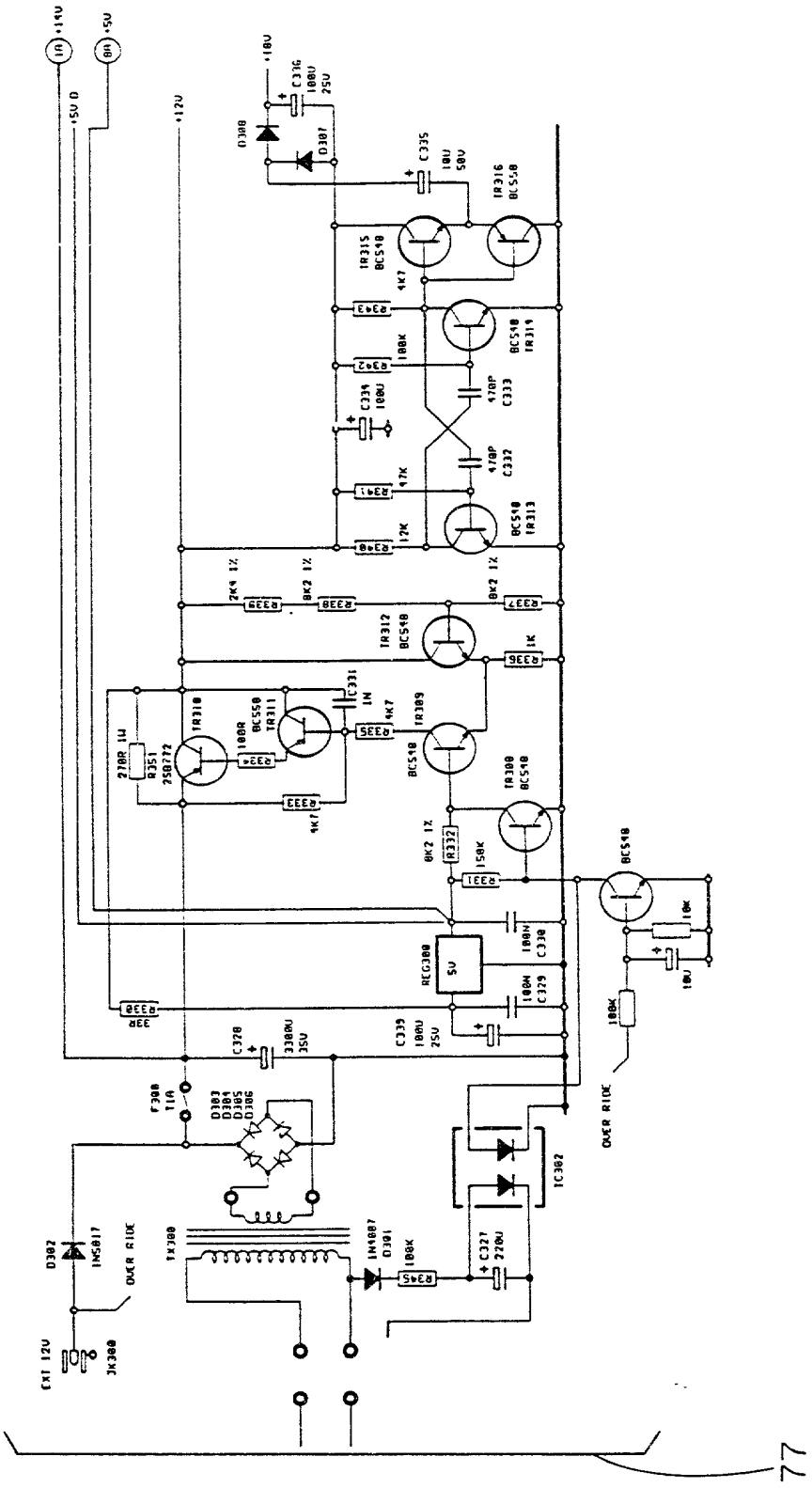

+15V
+5V
+12V
+18V
C336 100U 25V
D308
D307
C335 10U 50V
IR316 BC558
IR315 BC548
4K7
R343
BC548 IR314
100K
R342
C334 100U
470P C333
470P C332
47K
R341
12K
R340
BC548 IR313
2K4 1%
8K2 1%
8K2 1%
R338
R338
R337
IR312 BC548
1K
R336
C331 1N
IR310
BC558 IR311
100R
R334
4K7
R335
IR309 BC548
IR308 BC548
R351 2R2 2W
4K7
R333
8K2 1%
R332
150K
R331
BC548
10K
100N C330
REG309 5V
100N C329
10U
100K
R339 33R
C328 3300U 35V
C339 100U 25V
F300 1A
D303 D304 D305 D306
IC302
OVER RIDE
D302 1N5817
OVER RIDE
TR300
1N4007 D301
100K
R345
C327 220U
EXT 12V
JK300
77

FIG. 4B

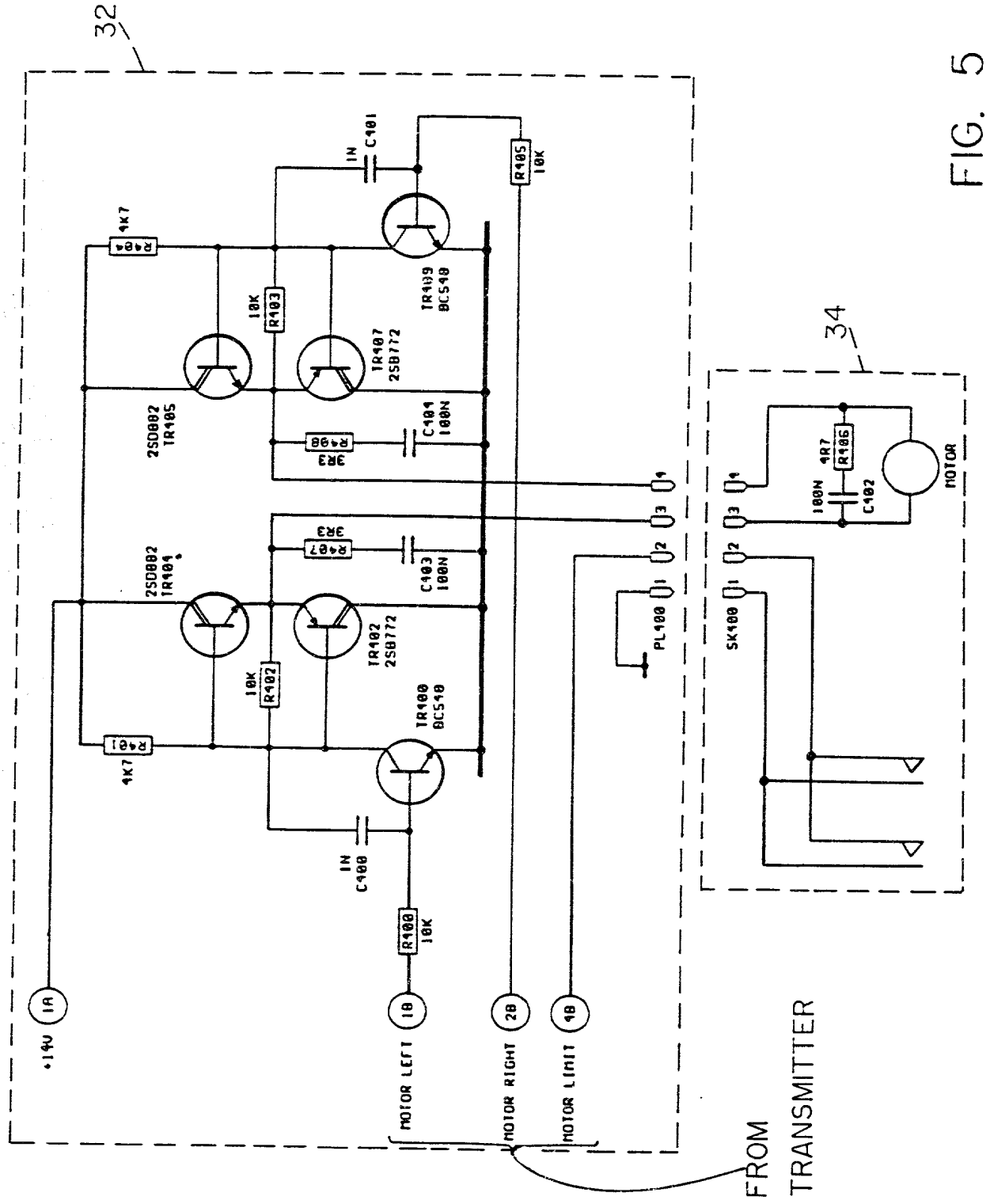
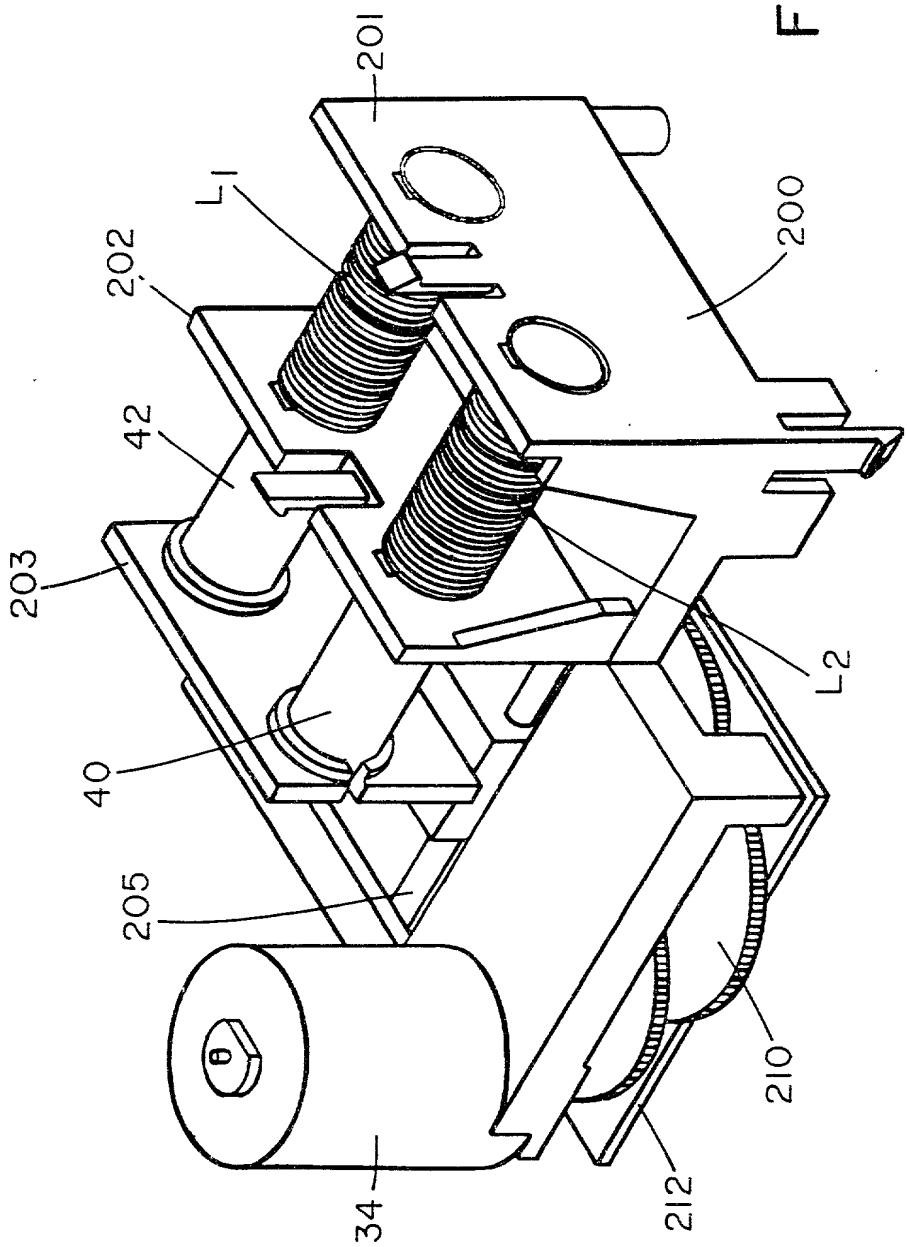

32
34
+14V
1A
1B
2B
4B
MOTOR LEFT
MOTOR RIGHT
MOTOR LIMIT
FROM TRANSMITTER
R400 10K
IN C400
R401 4K7
R402 10K
IR402 2SB772
IR400 BC548
2SD882 IR404
R407 3R3
C403 100N
2SD882 IR405
R408 3R3
C404 100N
IR407 2SB772
IR409 BC548
R403 10K
R404 4K7
IN C401
R405 10K
PL100
SK100
C402 100N
R406 4R7
MOTOR

FIG. 5

FIG. 6



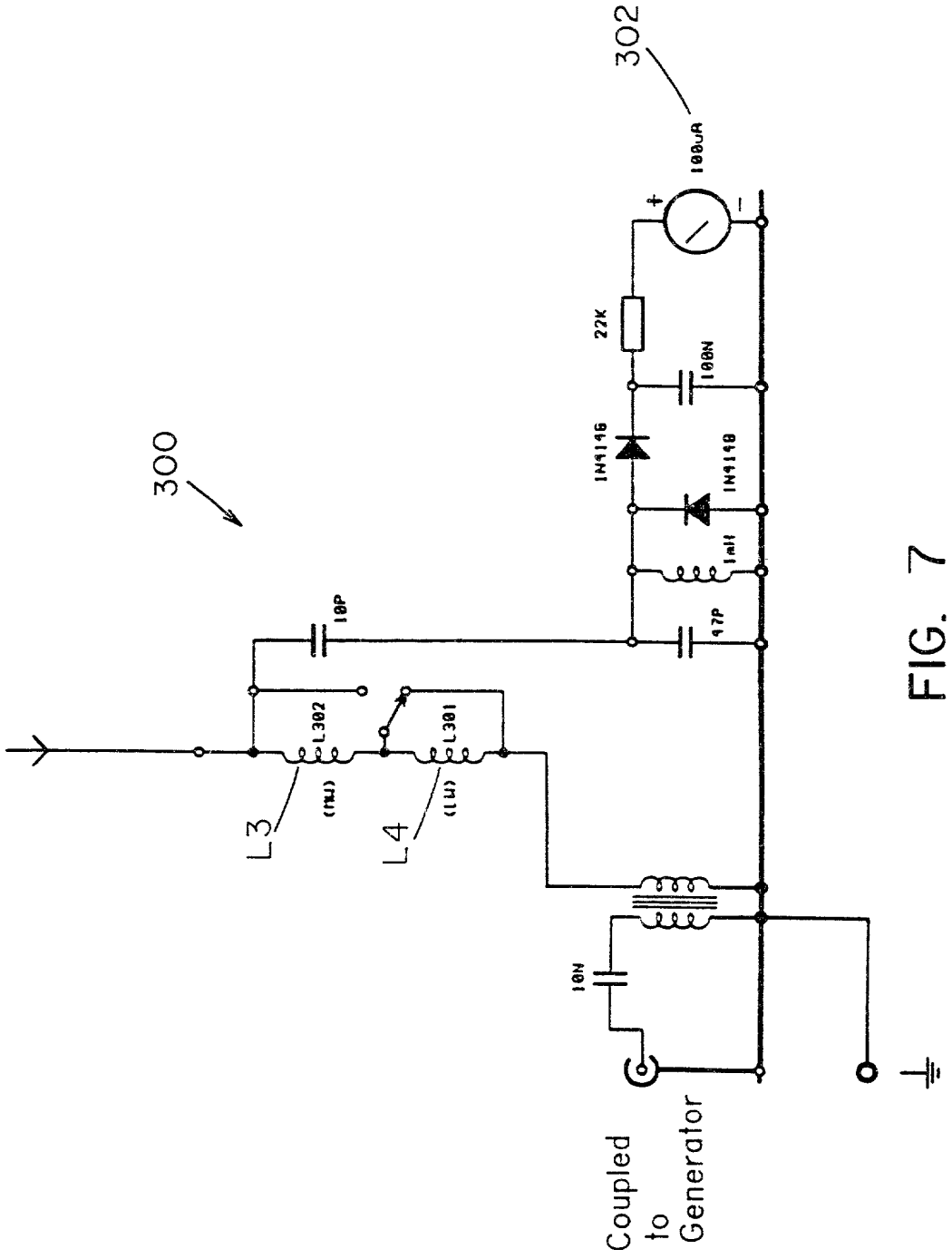

300
302
100uA
+
-
22K
100N
IN4148
IN4148
1mH
10P
47P
L302
(1mH)
L301
(1uH)
L3
L4
10N
Coupled
to
Generator

FIG. 7

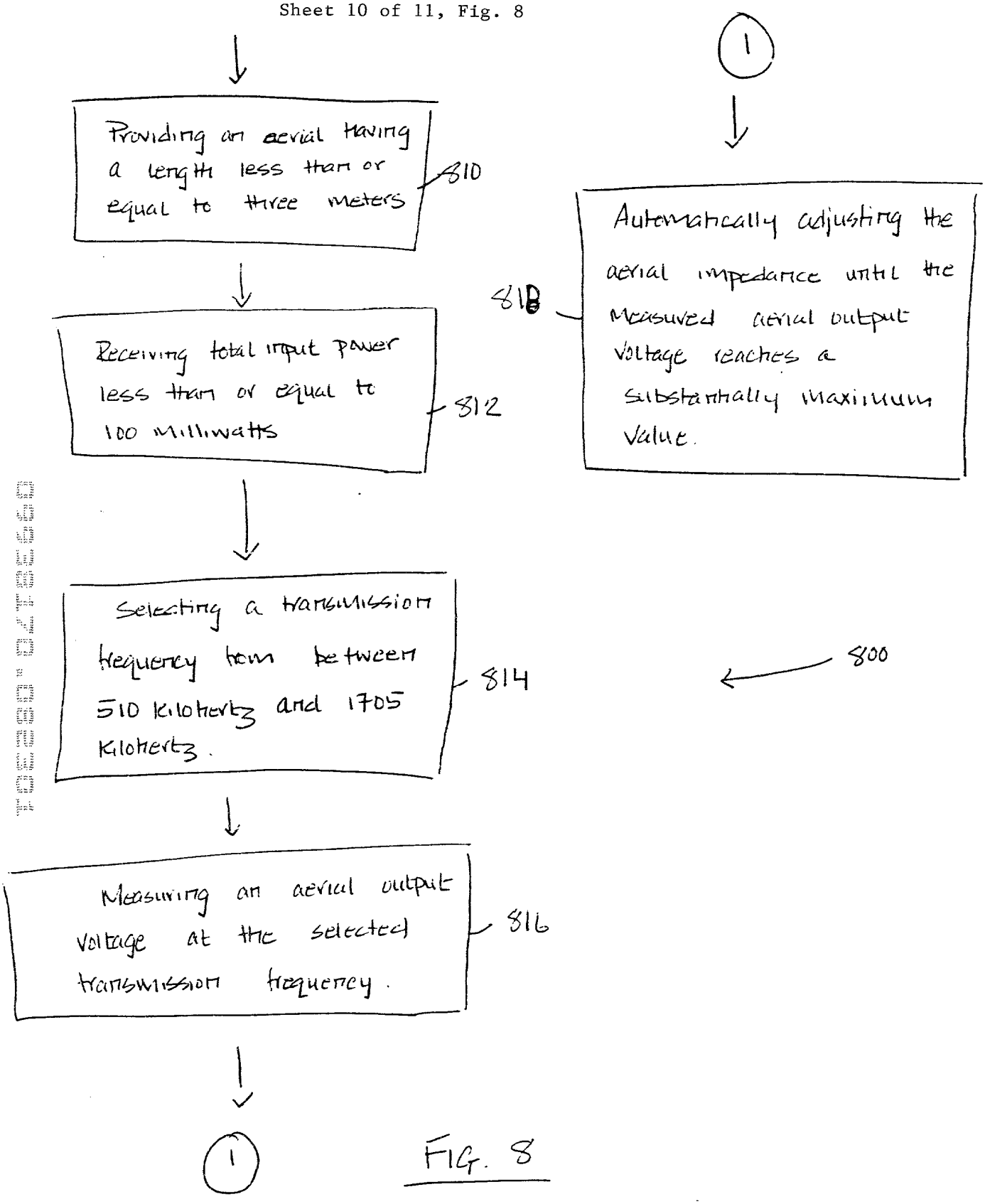
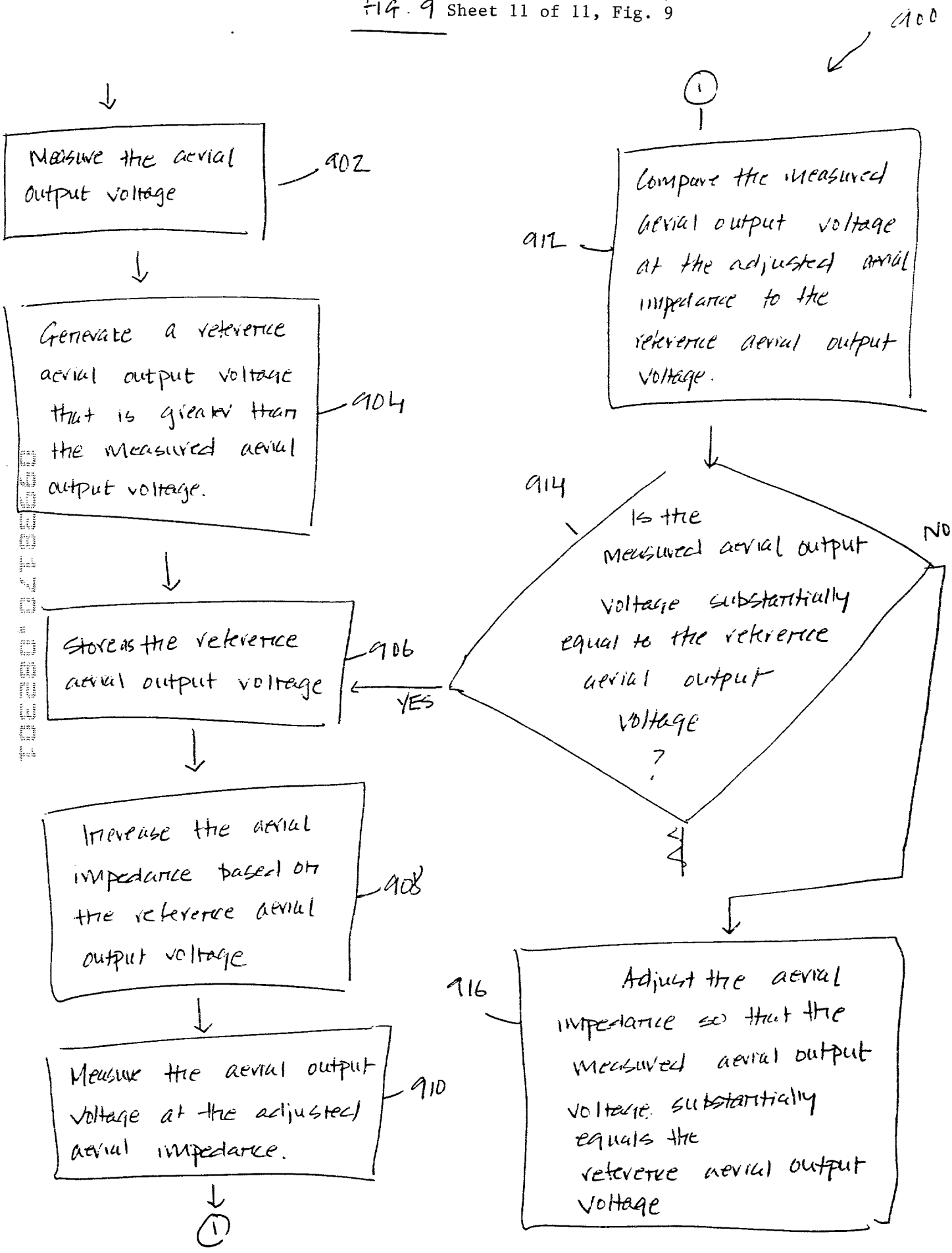

1
Providing an aerial having a length less than or equal to three meters
810
Receiving total input power less than or equal to 100 milliwatts
812
Selecting a transmission frequency from between 510 kilohertz and 1705 kilohertz.
814
Measuring an aerial output voltage at the selected transmission frequency.
816
1
Automatically adjusting the aerial impedance until the measured aerial output voltage reaches a substantially maximum value.
818
800

FIG. 8

FIG. 9


100
Measure the aerial output voltage
902
Generate a reference aerial output voltage that is greater than the measured aerial output voltage.
904
Store as the reference aerial output voltage
906
Increase the aerial impedance based on the reference aerial output voltage
908
Measure the aerial output voltage at the adjusted aerial impedance.
910
1
1
Compare the measured aerial output voltage at the adjusted aerial impedance to the reference aerial output voltage.
912
Is the measured aerial output voltage substantially equal to the reference aerial output voltage ?
914
YES
NO
Adjust the aerial impedance so that the measured aerial output voltage substantially equals the reference aerial output voltage
916